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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/710,437

07/11/2004

Yo-Shen Lin

CMDP0011USA

4436

27765

7590

04/03/2006

NORTH AMERICA INTELLECTUAL PROPERTY CORPORATION

P.O. BOX 506

MERRIFIELD, VA 22116

EXAMINER

GLENN, KIMBERLY E

ART UNIT

PAPER NUMBER

2817

DATE MAILED: 04/03/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

Application No.

10/710,437

Applicant(s)

LIN ET AL.

Examiner

Kimberly E. Glenn

Art Unit.

2817

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 26 January 2006.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1,3-11 and 13-16 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 11 and 13-16 is/are allowed.
- 6) ☒ Claim(s) 1,4-7,9 and 10 is/are rejected.
- 7) ☒ Claim(s) 3 and 8 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 11 July 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- ☐ Notice of References Cited (PTO-892)
- ☐ Notice of Draftperson's Patent Drawing Review (PTO-948)
- ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_.
- ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_.
- ☐ Notice of Informal Patent Application (PTO-152)
- ☐ Other: \_\_\_\_\_.

## DETAILED ACTION

### *Claim Rejections - 35 USC § 102*

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

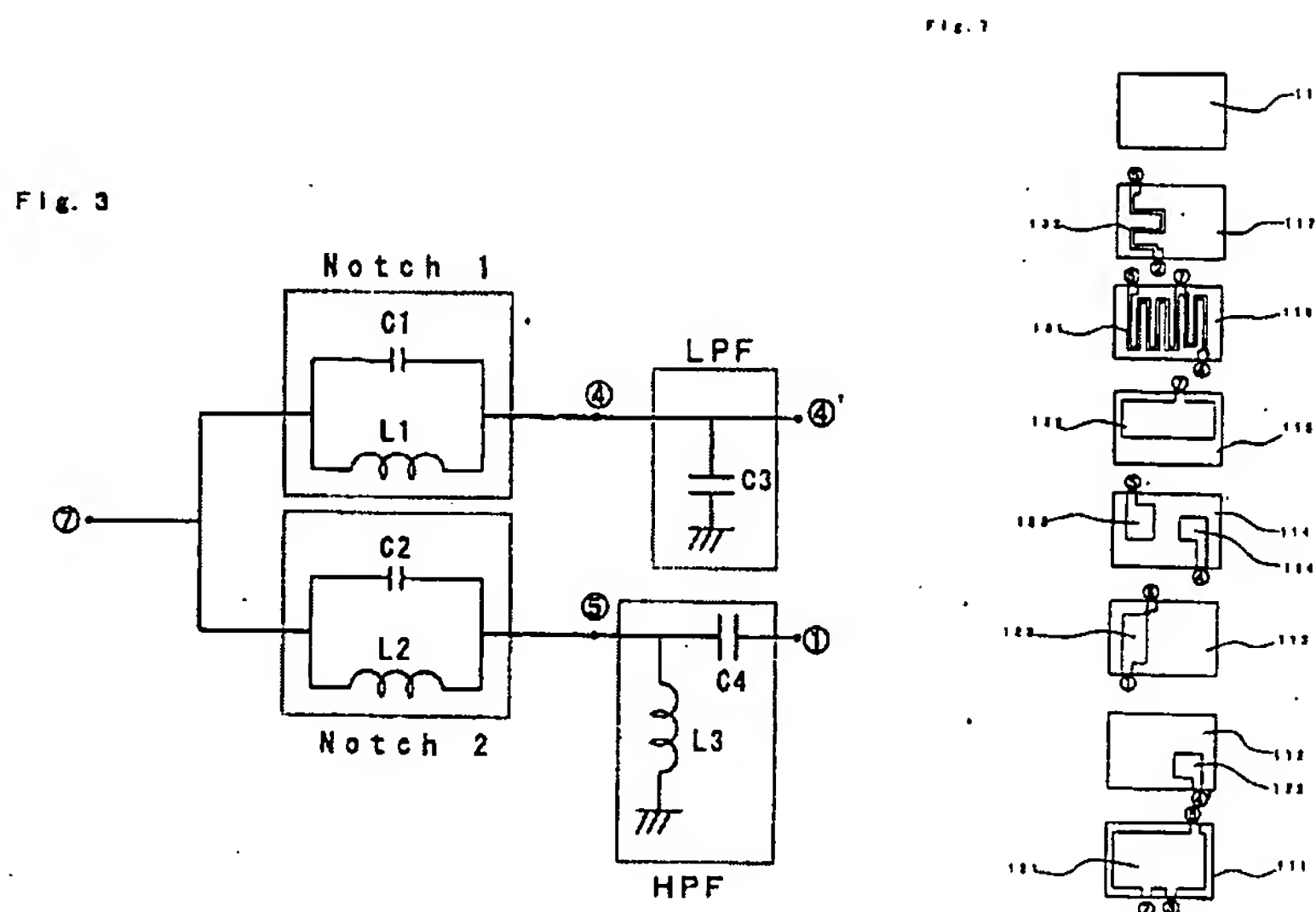
(a) the invention was known or used by others in this country, or patented or described in a printed publication in this or a foreign country, before the invention thereof by the applicant for a patent.

Claims 1,6 and 9 are rejected under 35 U.S.C. 102(a) as being anticipated by Tai  
US Patent 5,880,649

Tai et al disclose in figures 3 and 7, an multilayered frequency separator comprising: a low-pass circuit LPF wherein circuit elements are disposed on a first series of layers (112 111) of the multi-layered substrate and wherein a first end of the low-pass filter circuit is connected to a first port 7 and a second end of the low-pass filter circuit is connected to a second port 4'; a high-pass filter circuit HPF wherein circuit elements are disposed on a second series of layers (117 114 113) of the multi-layered substrate and wherein a first end of the high-pass filter circuit is connected to the first port 7 and a second end of the high-pass filter circuit is connected to a third port 1; and a ground plane 121 forming a base of the multi-layered substrate, wherein elements of the filter circuits are orientated horizontally with respect to the ground plane and are arranged in layers aligned substantially vertically, these layers being separated by a dielectric material ; wherein no layer is between an uppermost layer of the first series of layers of the multi-layered substrate and a lowermost layer of the second series of layers of the multi-layered substrate. The capacitor C3 is composed of pattern

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electrodes 122 and 121. (Column 3; lines 61 through column 4; lines 25 and column 6; line 28-42)



### ***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 4 and 5 are rejected under 35 U.S.C. 103(a) as being unpatentable over Tai et al US Patent 5,880,649 in view of Uriu et al US Patent 6,975,841.

See the above rejection of claim 1 for details of the Tai et al reference.

Thus, Tai et al is shown to teach all the limitation of the claims with the exception of the inductive elements being comprised of spiral plates.

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Uriu et al disclose in figure 5 an inductor L1 composed as a spiral electrode Lp5 and inductor L2 constituted as a spiral electrodes (Lp1 Lp3) disposed on multiple layers.

One of ordinary skill in the art would have found it obvious to form the inductor of Tai et al as a spiral electrode formed on a single or multiple layer as taught by Uriu et al. The motivation for this modification would have been to provide an art recognized equivalent structure.

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claim 7 is rejected under 35 U.S.C. 103(a) as being unpatentable over Tai et al US Patent 5,880,649.

See the above rejection of claim 1 for details of the Tai et al reference.

Thus, Tai et al is shown to teach all the limitation of the claims with the exception the high pass filter being a low frequency notch filter.

One of ordinary skill in the art would have found it obvious, at the time of the invention, to have the cutoff frequency of the high pass filter such that low frequency signal are attenuated (low frequency notch filter), since it has been held that where the general conditions of the claims are disclosed in the prior art, discovering the optimum or workable ranges involves only routine skill in the art.

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claim 10 is rejected under 35 U.S.C. 103(a) as being unpatentable over Tai et al US Patent 5,880,649 in view of Partlow et al 5,683,528.

See the above rejection of claim 1 for details of the Tai et al reference.

Thus, Tai et al is shown to teach all the limitation of the claims with the exception the multilayer substrate of being composed of low temperature cofired ceramic substrate.

Partlow et al disclose a low loss low temperature cofired ceramic.

One of ordinary skill in the art would have found it obvious to form the multilayer substrate of Tai et al using low temperature cofired ceramic as taught by Partlow et al. The motivation for this modification would have been to provide a multilayer substrate with low dielectric constant and a very low loss tangent.

### ***Allowable Subject Matter***

Claims 3 and 8 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Claims 11 and 13-16 are allowed.

The following is a statement of reasons for the indication of allowable subject matter: With regards to claims 3, 8, 11 and 13-16, the prior art of record does not disclose the specific circuit configuration as recited in claims 3 and 11.

### ***Conclusion***

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Kimberly E. Glenn whose telephone number is (571)-272-1761. The examiner can normally be reached on Monday-Friday 7:30 to 4:00.

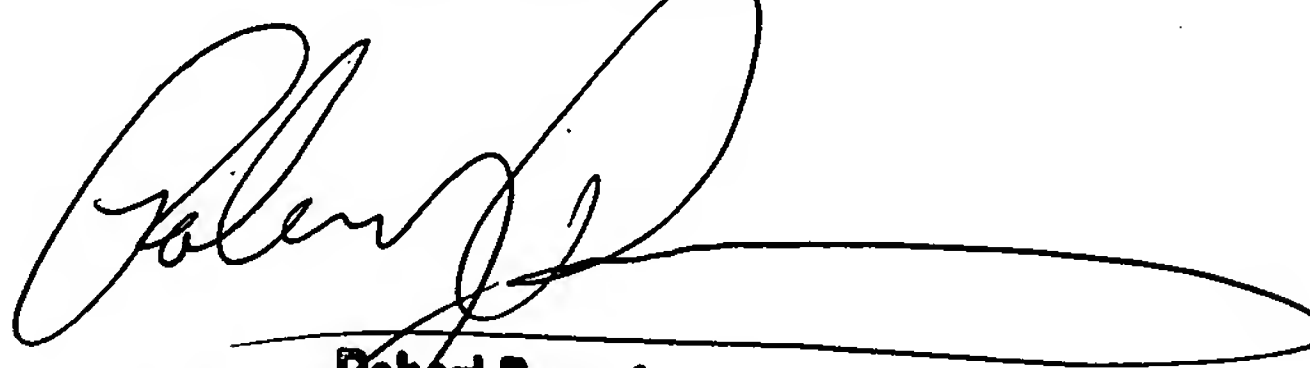
If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Robert Pascal can be reached on (571)-272-1769. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.



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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Kimberly E Glenn  
Examiner  
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A handwritten signature in black ink, appearing to read 'Robert Pascal', with a long horizontal flourish extending to the right.

**Robert Pascal**  
**Supervisory Patent Examiner**  
**Technology Center 2800**